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**Notice of Allowability**

Application No.

09/912,184

Examiner

Hai L. Nguyen

Applicant(s)

ISHIKAWA ET AL.

Art Unit

2816

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 02/15/2005.
2. ☒ The allowed claim(s) is/are 1-10.
3. ☒ The drawings filed on 7/24/1 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____</li> <li>7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____</li> </ol> |
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TIMOTHY P. CALLAHAN  
SUPERVISORY PATENT EXAMINER

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment received on 2/15/2005 has been reviewed and considered with the following results:

As to the objections to the specification, Applicant's amendments have overcome the objections, as such; the objections have been withdrawn.

As to the objections to the drawings, Applicant's clarifications have overcome the objections, as such; the objections have been withdrawn.

As to the rejections to the claims, under 35 U.S.C. 112, 1<sup>st</sup> and 2<sup>nd</sup> paragraphs, Applicant's amendments and clarifications have overcome the rejections, as such; the rejections have been withdrawn.

As to the prior art rejections to the claims. Applicant's arguments have been considered and found persuasive. Applicant's amendments and arguments, with respect to the previous prior art rejections mailed on 11/12/2004, have overcome the rejections, as such; the prior art rejections have been withdrawn. Therefore the case is found to be in allowance condition for the reasons as set for below.

### **EXAMINER'S AMENDMENT**

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to Applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

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Authorization for this examiner's amendment was given in a telephone interview with Mr. David E. Spaw on 4/08/2005.

3. The application has been amended as follows:

***In the claims***

Claim 10, line 1, after "claim", -- 6, -- has been added.

**REASON FOR ALLOWANCE**

4. The following is an examiner's statement of reasons for allowance:

The prior art of record fails to disclose or fairly suggest a circuit (as shown in Fig. 1), and a method of use thereof, for detecting the amplitude of an alternating signal (S) in the form of a sinusoidal wave having a period fluctuation within a certain fluctuant range together with an amplitude fluctuation ( $A(t1) - A(t5)$  in instant Fig. 4) by having a very specific structural limitations as comprising a phase revising circuit (1, 21, 22) including a first and a second all pass filters (11, 12) for changing the alternating signal (S) to a first and a second phase-shifted signals ([S1], S2) with a phase delay difference of  $90^0$  therebetween within a frequency range corresponding to the fluctuant range of the period, and a sampling circuit (2) for sampling an amplitude of the first phase-shifted signal ([S1]) at a timing ( $t1 - t5$ ) when the other (S2) has a phase angle of a certain value (0).

***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai L. Nguyen whose telephone number is 571-272-1747 and

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Right Fax number is 571-273-1747. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The official fax phone number for the organization where this application or proceeding is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1562.

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HLN

  
April 8, 2005